

Please type a plus sign (+) inside this box



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

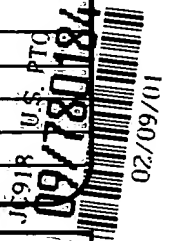
INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 2

Complete if Known

Application Number	To Be Assigned
Filing Date	Herewith
First Named Inventor	Craig S. Gittleman et al.
Group Art Unit	To Be Assigned 1764
Examiner Name	To Be Assigned
Attorney Docket Number	8540G-000038



U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
BR	1	6,162,558		Borup et al.	12/19/00	
	2	5,958,109		Fuderer	9/28/99	
	3	5,891,217		Lemcoff et al.	4/6/99	
	4	5,876,486		Steinwandel et al.	3/2/99	
	5	5,646,305		Wagner et al.	7/8/97	
	6	5,632,807		Tomita et al.	5/27/97	
	7	5,529,970		Peng	6/25/96	
	8	5,529,763		Peng et al.	6/25/96	
	9	5,441,559		Petit et al.	8/15/95	
	10	4,917,711		Xie et al.	4/17/90	
	11	4,696,682		Hirai et al.	9/29/87	
	12	4,587,114		Hirai et al.	5/6/86	
BR	13	3,564,816		Batta	12/30/68	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ₆
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
BR	1		WO 99/28013		Keefer et al.	6/10/99		
BR	2		EP073764 8A2		Anand, et al.	10/16/96		

Examiner Signature

Kevin Ridley

Date Considered

1/30/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark

Please type a plus sign (+) inside this box → +

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 2

Complete if Known

Application Number	To Be Assigned
Filing Date	Herewith
First Named Inventor	Craig S. Gittleman et al.
Group Art Unit	To Be Assigned
Examiner Name	To Be Assigned
Attorney Docket Number	8540G-000038

02/09/01
 07/18/01
 09/18/01

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DR	1	Sircar, S. M. Anand, B. T. Carvill, J. R. Hufton, S. Mayorga, and R. N. Miller, "Sorption Enhanced Reaction Process for Production of Hydrogen," Proc., U.S. DOE Hydrogen Program Rev., 1, 815 (1995).	
DR	2	Carvill, B. T., J. R. Hufton, M. Anand, and S. Sircar, "Sorption Enhanced Reaction Process", AIChE J., 42(10), 2765 (1996).	
DR	3	Hufton, J. R., S. Mayorga, and S. Sircar, "Sorption Enhanced Reaction Process for Hydrogen Production", AIChE J., 45(2), 248 (1999).	
DR	4	Iyuke, S. E., Daud, W.R.W., Mohamad, A.B., Kadhum, A.A.H., Faisal, Z., Shariff, A. M., "Application of Sn-activated carbon in pressure swing adsorption for purification of H ₂ ," Chemical Engineering Science 55 (2000) 4745-4755.	
DR	5	Ding, Y., Alpay, E., "Equilibria and Kinetics of CO ₂ Adsorption on Hydrotalcite Adsorbent," Chemical Engineering Science 55 (2000) 3461-3474.	
DR	6	Ding, Y., Alpay, E., "Adsorption-Enhanced Steam-Methane Reforming," Chemical Engineering Science 55 (2000) 3929-3940.	

Examiner Signature	<i>Rutha Ricci</i>	Date Considered	4/30/03
--------------------	--------------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.